

Contact Person: Dan Regan Date Prepared: 23 July 1997 K97277C

### 510(k) SUMMARY

Trade Name:

ADVANCE® Ultra-Congruent Tibial Insert

Common Name:

Total Knee Replacement Implant

Product Classification:

11

Predicate Device:

Intermedics Natural Knee Ultra-Congruent Tibial Insert

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of 21 CFR 807.92.

## Description/Intended Use

The ADVANCE® Ultra-Congruent tibial insert is part of a total system that is indicated for use only with cement.

The ADVANCE® Ultra-Congruent Tibial Insert is indicated in total knee replacements for the following conditions:

- noninflammatory degenerative joint disease including osteoarthritis, traumatic arthritis, or avascular necrosis;
- 2) inflammatory degenerative joint disease including rheumatoid arthritis;
- 3) correction of functional deformity;
- 4) revision procedures where other treatments or devices have failed; and
- 5) treatment of fractures that are unmanageable using other techniques.

#### Materials

The ADVANCE® Ultra-Congruent Tibial Insert is manufactured from ultra high molecular weight polyethylene.

## **Testing Summary**

- Submitted femoral-tibial contact area testing demonstrates that the ADVANCE® Ultra-Congruent Tibial Insert is comparable to the predicate device.
- Submitted femoral-tibial constraint testing (anterior shear, posterior shear, medial shear, lateral shear, and rotation) demonstrates that the ADVANCE® Ultra-Congruent Tibial Insert is expected to remain stable and resist displacement when subjected to appropriate physiological loads.
- Submitted ultra high molecular weight polyethylene (UHMWPE) properties demonstrate that the ADVANCE® polyethylene components meet or exceed minimal properties of ASTM F 648.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

# OCT 2 1 1997

Mr. Dan Regan International Regulatory Affairs Manager Wright Medical Technology, Inc. 5677 Airline Road Arlington, Tennessee 38002

Re: K972770

ADVANCE® Ultra-Congruent Tibial Insert

Regulatory Class: II Product Code: JWH Dated: July 23, 1997 Received: July 24, 1997

## Dear Mr. Regan:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). This decision is based on this device being equivalent only to similar devices labeled and intended to be fixed within bone with acrylic "bone cement." You may, therefore, market your device subject to the general controls provisions of the Act and the following limitations:

- 1. The thinnest tibial insert available is the nominal "10mm" sized insert, which has a minimum polyethylene thickness under the condyles of 6.00mm.
- 2. This device may not be labeled or promoted for noncemented use.
- 3. All labeling for this device, including package label and labeling included within the package, must prominently state that the device is intended for cemented use only.

4. Any non-cemented fixation of this device is considered investigational and may only be investigated as a significant risk device in accordance with the investigational device exemption (IDE) regulation under 21 CFR, Part 812. All users of the device for non-cemented fixation must receive approval from their respective institutional review boards (IRBs) and the Food and Drug Administration (FDA) to conduct the investigation.

The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practices, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical General regulation (21 CFR Part 820) and that, Devices: through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal Laws or Regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification immediately. An FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be

obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address "http://www.fda.gov/cdrh/dsmamain.html".

Sincerely yours,

Cella M. Witten, Ph.D., M.D.

Director

Division of General and Restorative Devices Office of Device Evaluation Center for Devices and Radiological Health

Enclosure

# Wright Medical Technology, Inc. Premarket Notification ADVANCE® Ultra-Congruent Tibial Insert

# C. Indications for Use of the Device

510(k) Number (if known):

**Device Name:** 

ADVANCE® Ultra-Congruent Tibial Insert

Indications for Use:

The ADVANCE® Ultra-Congruent Tibial Insert is indicated for use in total knee arthroplasty for reduction or relief of pain and/or improved knee function in skeletally mature patients with the following conditions:

- 1) noninflammatory degenerative joint disease including osteoarthritis, traumatic arthritis, or avascular necrosis;
- 2) inflammatory degenerative joint disease including rheumatoid arthritis;
- 3) correction of functional deformity;
- 4) revision procedures where other treatments or devices have failed; and
- 5) treatment of fractures that are unmanageable using other techniques.

The ADVANCE® Ultra-Congruent tibial insert is part of a total system that is indicated for use only with cement.

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Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of General Restorative Devices

510(k) Number \_\_\_\_\_

Prescription Use X

Or

Over-the-Counter Use

(Per 21 CFR 801.109)

(Optional Format 1-2-96)